

**Work Order ID 61548**

Monday, August 30, 2010 11:03:57 AM



Page 1

Item ID: D206-642-241

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 8/30/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 9/6/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

*H*

Date:

*10-8-30*

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D2650

Rev F

0.00

100



DOCUMENT CONTROL

DC

0.00

Memo

Document Control

Photocopy bluefile &amp; type labels per PPP D206-642-241

CHG005

*N/A*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**NOTE:** Date & initial all entries

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Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Deburr Fwd edge of tube

2- Remove ridge on inside of Fwd edge of tube as per Dwg D2650

3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required.

Pick:

Qty ☐ Part Number ☐ Description ☐ Batch

A/R ☐ Aluminum Rod ☐

M112507 / M114877 BE 10-09-01

4-Grind weld flush to cap on top surface only.

BE 10-09-01

5-Cut Aft end as per dwg 2650 from front of tube and Deburr

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D2650

7-Open holes for Aft end cap as per Dwg D2650 with #30 Drill Bit using DT8025.

8-Drill pilot holes using Dt 8167.

9-Locate DT8732 from inner Aft saddle hole & 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 & D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 & doubler leaving DT8732 for added support.

10- Drill D3286-1 doubler rivet holes in tube using # 30 drill, spot drilling doubler at the same time.

SAD  
10-09-01

SAD  
10-09-02

DP  
10-9-13

W/O:		WORK ORDER CHANGES					
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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads.

12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D2650

13-Remove D3286-1 doublers, identify orientation, deburr, then attach them to the workorder

14-Remove indexing edge using DT8741 as per Dwg D2650

15-C'sink GHW rivet holes as per Dwg D2650

120



QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

8/10/09/13

10

10-9-13

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Reference:

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Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Skidtubes	0.00							
	Skidtubes								
Skidtubes	<b>Memo</b>	0.00							
	1-Open crossbolt holes to Ø0.3125"								
	2-Drill pilot holes using DT8028-3, then open to Ø0.297" as per Dwg D2650. Open Aft cap hole #6.								
	3-Deburr tube and blow out chips from inside the tube								
140	Chemical Conversion Coat per QSI005 4.1	0.00							
	HandFinish								
Hand Finishing	<b>Memo</b>	0.00							
150	QC3- Inspect Part Finish	0.00							
	QC								
Quality Control	<b>Memo</b>	0.00							

DP 10-9-15

DP 10-9-15

1 - BE 10-09-15

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Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

0.00



Skidtubes

0.00

Skidtubes

Memo

1-Open holes to finished size as per Dwg D2650, D2650-3 Drilling Detail  
(without cutting fluid)

2-C'sink crossbolt spacer holes as per Dwg D2650(without cutting fluid)

3-Deburr and blow out all chips from inside the tube

170

0.00



QC6- Inspect dimensions to drawing

0.00

QC

Memo

Quality Control

10-9-15

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Cust Item ID:

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Reference:

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Locate, install and rivet doublers as per Dwg D2650. Micro-shave rivets as required

2-Bond D2654-3 web in place as per QSI 015. Ensure holes line up. Allow 12 Hrs. cure time before cutting

Start Date: ☐ 10-9-15 ☐ Time: ☐ 2:30pmFinish Date: ☐ 10-9-16 ☐ Time: ☐ 8:30am

Pick:

Qty ☐ Part Number ☐ Description ☐ BatchA/R ☐ Sikaflex-291 ☐ M115114 ☐Sikaflex expire date: ☐ 11-1-30

190



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

8/30/09/16

10-9-15

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

200

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-remove alodine from around hole and prepare for welding

BE 10/09/27

2-Prep per QSI 005 and Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.

Pick:

Qty ☐ Part Number ☐ Description ☐ BatchA/R ☐ Aluminum Rod ☐ M112507

BE 10/09/27

3-Grind welds flush as per Dwg D2650.

4-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D2650. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.

A/R ☐ SS Rod ☐

NONE BE 10/09/28

5-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D2650. Deburr

BE 10/09/28

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

210

0.00



HandFinishing

HandFinish

Memo

0.00

Hand Finishing

Install D2680-041 Nut Plate as per Dwg D2650

1 BE 10/09/28

220

0.00



QC9- Inspect visual per QSI004- Fusion Welds

QC

Memo

0.00

Quality Control

QC9 PD 10.05.29  
QC10 8/10/09/29

230

0.00



QC5- Inspect part completeness to step on W/O

QC

Memo

0.00

Quality Control

8/10/09/29

QC

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Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240  HandFinish Hand Finishing	Pressure Wash per QSI005 4.3  Memo Brush alodine tube on crossbolt spacer area, do not acid etch, do not dip tube in tank.	0.00 0.00		⇒ 91 10/09/30		1	0		
250  Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M 105291 Memo START TIME: 8:45 OVEN TEMPERATURE: 320° FINISH TIME: 9:15	0.00 0.00		BL 10-10-4		0	0		
260  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00 0.00		⇒ 91 10/10/04		11	0		

W/O:		WORK ORDER CHANGES					
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Run Start



Stop



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270	HandFinishing	0.00							
	HandFinish								
Hand Finishing	Memo	0.00							
	1- Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate. A/R <input type="checkbox"/> Sikaflex-291 <input type="checkbox"/> <u>M115114</u> <input type="checkbox"/> <input type="checkbox"/> Sikaflex expire date: <u>11/01</u>								
	2-Install D2651-3 O-Rings on D2651-1 plugs with Petroleum Jelly and install plugs as per Dwg D2650 (D2650-3 detail). Clean excess adhesive.								
	3-Install MS27039-4-06 Screw as per DEO 9153.								
	4 -Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive A/R <input type="checkbox"/> Sikaflex-291 <input type="checkbox"/> <u>M115114</u> <input type="checkbox"/> <input type="checkbox"/> Sikaflex expire date: <u>11/01</u>								
	5 -Wing Walk as per Dwg D2650-3 and QSI 005 4.4 A/R Batch: <u>AA115028</u> Batch: <u>AA115028</u>								
300	QC5- Inspect part completeness to step on W/O	0.00							
	QC								
Quality Control	Memo	0.00							

Handwritten: 10/10/05

Handwritten: 8/30/10

Handwritten: 40

W/O:		WORK ORDER CHANGES					
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Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
310	Packaging	0.00							
	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D206-664-241								
	Location: _____								
	PPP Rev: _____								
	PPP 61547								
320	QC21- Final Inspection - Work Order Release	0.00							
	QC								
QC	Memo	0.00							
Quality Control									

*Signature*

10/10/12 *Signature*

*Signature*  
①

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**Parent Item Name:** Replacement Skidtube

**Required Date: 9/6/2010**

**Required Qty: 1.00**

**Comments:** IPP Rev: 04.12.02□ Revised procedural steps□ KJ/JLM IPP RevP: revise and update route/bom DD 10.01.06 verified by: EC□ IPP rev Q 10.02.19 per PAR 09-043 EC verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2620 		Manufactured	No			110	Each	4.0000	1	1			
Skidtube, 206 Skidtube													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				LG	BG1632	4							
					57542	4							
D3286-1 		Manufactured	No			110	Each	29.0000	2	2			
Doubler													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST050		29							
					52844	2							
D2647 		Manufactured	No			110	Each	72.0000	1	1			
Cap													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FP		72							
					55352	72							
D2654-3 		Manufactured	No			180	Each	2.0000	1	1			
Web													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				LG		2							
					55041	2							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

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Page 2

Work Order ID: 61548

Parent Item: D206-642-241

Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-04

Purchased No

180 Each

463.0000 52 52



Cherry Rivet

Location

Loc Qty

Loc Code

ST311

463

112314

63

113644

200

113749

200

DP

10-9-15

#14

62 pcs

D2649

Manufactured No

200 Each

29.0000 18 18



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

29

58545

2

60652

27

BW496

18

BE 10/09/27

D3286-3

Manufactured No

200 Each

13.0000 2 2



Spacer

Location

Loc Qty

Loc Code

LG

13

46643

13

2

BE 10/09/28

D2680-041

Manufactured No

210 Each

35.0000 1 1



Nut Plate

Location

Loc Qty

Loc Code

ST021

35

55366

35

1

BE 10/09/28

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Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No QA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, August 30, 2010 11:04:00 AM

Page 3

Work Order ID: 61548

Parent Item: D206-642-241

Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-03

Purchased No

210 Each

1,910.000

2 2



Cherry Rivet

Location

Loc Qty

Loc Code

ST311

1910

111359

5

112314

2

114436

448

114450

81

114859

1374

CCR264SS3-3

Purchased No

210 Each

470.0000

2 2



Cherry Rivet

Location

Loc Qty

Loc Code

ST311

470

112314

4

113539

44

113973

422

D2646

Manufactured No

270 Each

71.0000

1 1



Aft Cap

Location

Loc Qty

Loc Code

FP-4

62

57332

62

FP6

9

52663

9

2 BE 10/09/28

2 BE 10/09/28

11 1010104

VI

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Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, August 30, 2010 11:04:00 AM

Page 4

Work Order ID: 61548

Parent Item: D206-642-241

Parent Item Name: Replacement Skidtube


Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D2651-1 Manufactured No 270 Each 734.0000 18 18  
  
 Plug

 YH 10/10/00

Location	Loc Qty	Loc Code
FP	152	
51530	152	
fpa	582	
53349	411	
57869	171	

AN960JD416 NAS1149D0463J Purchased No 270 Each 0.0000 1 1





Washer

D2651-3 Manufactured No 270 Each 342.0000 18 18



O-Ring

 YH 10/10/00


 YH 10/10/00

Location	Loc Qty	Loc Code
FP	342	
46114	342	


MS27039-1-08 Purchased No 270 Each 1,685.000 46 46



Screw

 YH 10/10/00

Location	Loc Qty	Loc Code
ST291	1685	
110835	493	
114718	192	
115108	1000	

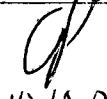
 YZ

SEE W/D  
CHG

Monday, August 30, 2010 11:04:00 AM

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10.10.04	150	USE MS27039C1-08 SCREW Qty(44) M115336 USE MS27039-1-08 SCREW Qty(2) M110835	HL	10/10/04	x44 x2	 10.10.04 QJ042	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Monday, August 30, 2010 11:04:00 AM

Page 5

Work Order ID: 61548

Parent Item: D206-642-241

Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130

Purchased

No

270

Each

3,094.000

44

44



Insert



10/10/04

Location

Loc Qty

Loc Code

PKG11

2902

114723

2902

ST282

153

110511

10

114407

143

ST381

39

114654

39

MS27039-4-06

Purchased

No

270

Each

118.0000

1

1



Screw



10/10/04

Location

Loc Qty

Loc Code

ST292

118

109061

24

115460

94

AN960JD10L

NAS1149D0332J

Purchased

No

270

Each

2,481.000

46



Washer



10/10/04

Location

Loc Qty

Loc Code

ST348

2481



110985

2481

1111348

x2

★ SEE W/O CHG.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/10/04	270	NAB114920332R / M115816 USE Qty (44) AN960 C10L WASHER Qty (2) AN960 J10L WASHER NAB1149D0463 J / M115622	M	10/10/04	x44 X Z	 10.10.04 AS1012	 10/10/05

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



# Picklist Print

Monday, August 30, 2010 11:04:00 AM

Page 6

Work Order ID: 61548

Parent Item: D206-642-241

Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3537-1

Manufactured No

270

Each

8.0000

4

4



Wearpad



10/10/04

Location

Loc Qty

Loc Code

FP

1

B6B640

X4

55465

1

FP017

48

FP17

7

57713

3

60491

4

D3537-3

Manufactured No

270

Each

9.0000

1

1



Wearpad



10/10/04

Location

Loc Qty

Loc Code

FP19

9

59711

9

B60866

Y1

D3535-13

Manufactured No

270

Each

7.0000

1

1



Wearshoe



10/10/04

Location

Loc Qty

Loc Code

FP018

7

58686

7

B62006

X1

D3536-13

Manufactured No

270

Each

10.0000

1

1



Gasket



10/10/04

Location

Loc Qty

Loc Code

FP11

10

58684

10

B361930

X1

Monday, August 30, 2010 11:04:00 AM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, August 30, 2010 11:04:00 AM

Page 7

Work Order ID: 61548

Parent Item: D206-642-241

Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3535-21 Manufactured No 270 Each 11.0000 1  
Wearshoe  
10/10/05

Location Loc Qty Loc Code

FP 11  
55730 11

D3536-21 Manufactured No 270 Each 4.0000 1  
Gasket  
10/10/05

Location Loc Qty Loc Code

FP 4  
47010 4

D3535-33 Manufactured No 270 Each 1.0000 1  
Wearshoe  
10/10/05

Location Loc Qty Loc Code

FP 1  
51647 1

D3536-33 Manufactured No 270 Each 12.0000 1  
Gasket  
10/10/05

Location Loc Qty Loc Code

FP 12  
58685 12

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Shop Packet Print

Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

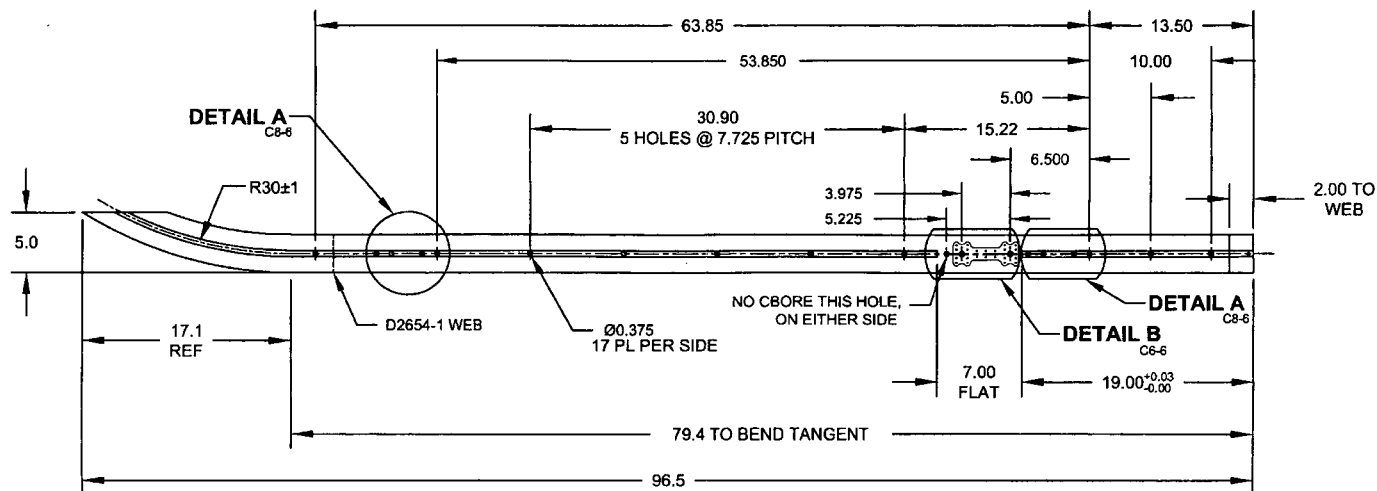
# NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3  
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241-291 ADHESIVE PER DART QSI 015
- 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 12) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

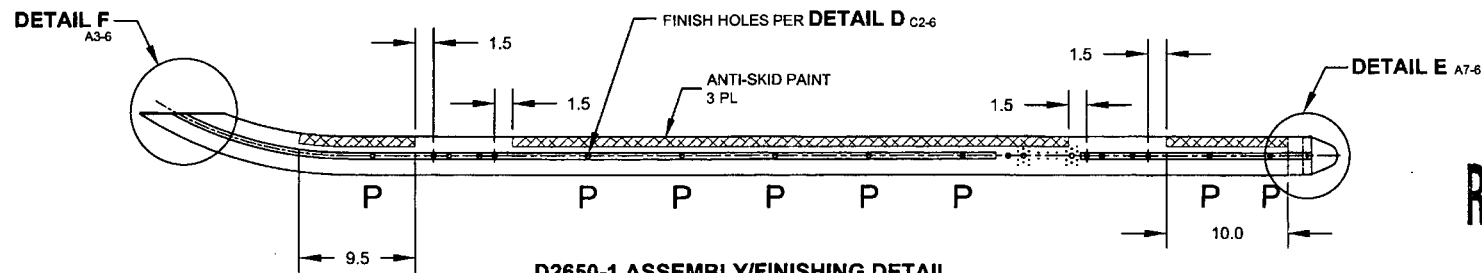
F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY UPDATED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	RMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	06.03.30
D	REDRAW: INCCORP. DE09136/9153/9163 MOD GROUND HANDLING ON D2650-1/-3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	<b>DART AEROSPACE USA, INC</b> PORT HADLOCK, WA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 1 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	<small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

C210/9/02  
W10.61548

RELEASED  
08-23-17

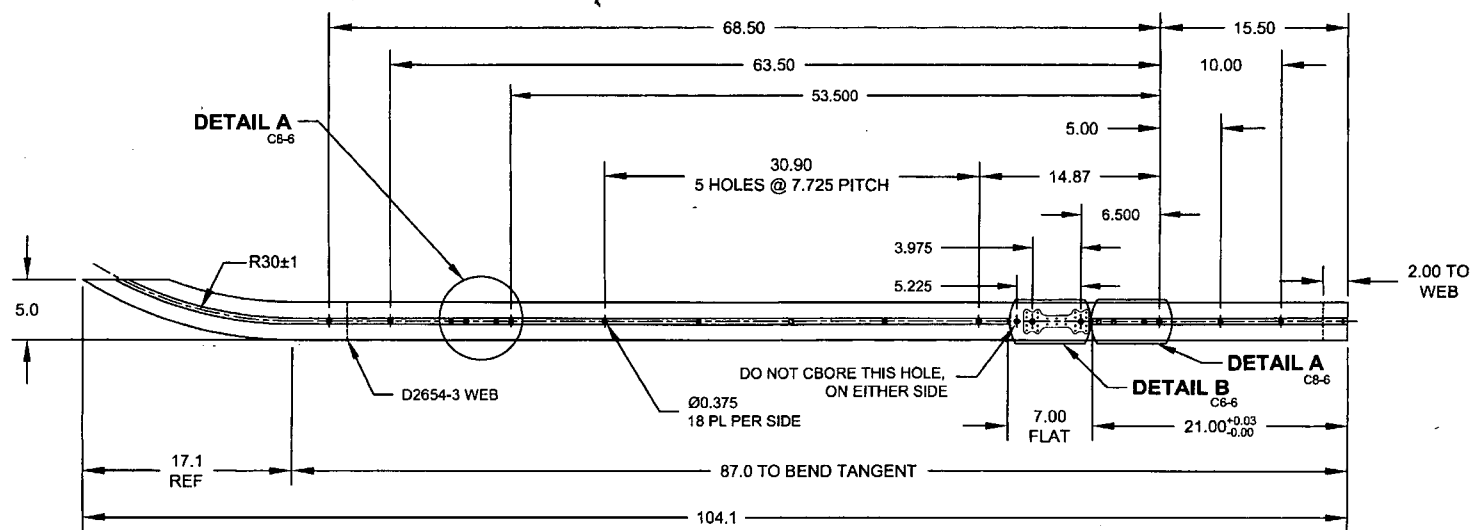


W10:61548

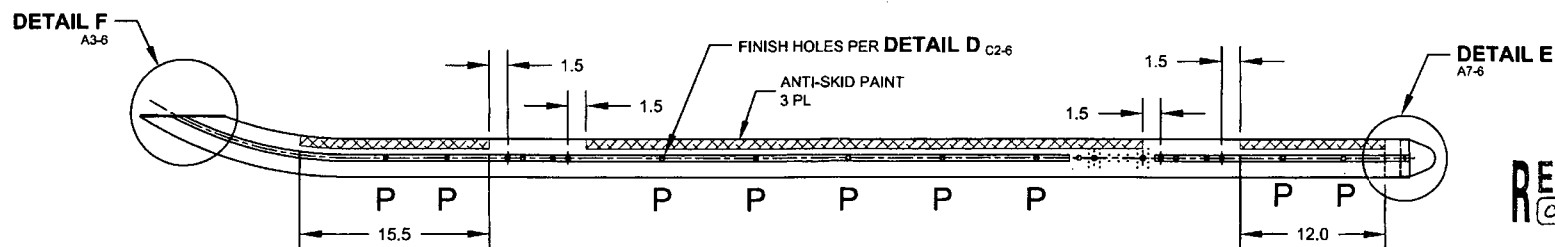


RELEASED  
68-092271P

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 2 OF 6
APPROVED		TITLE	SCALE
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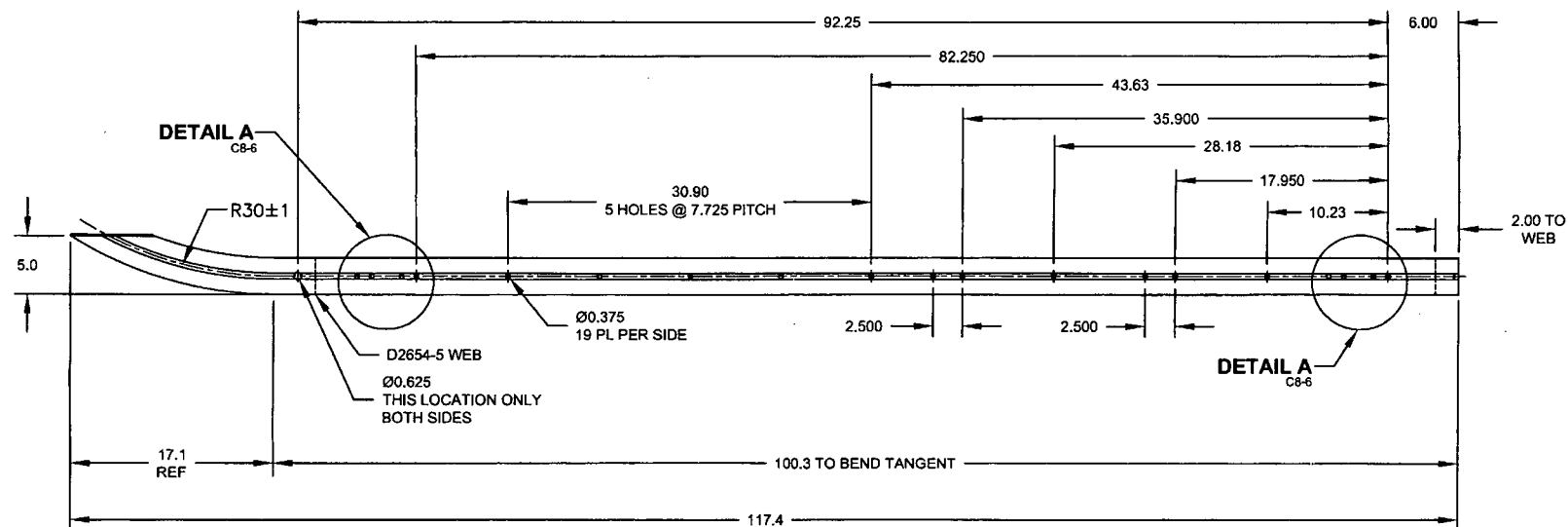


W10.61548



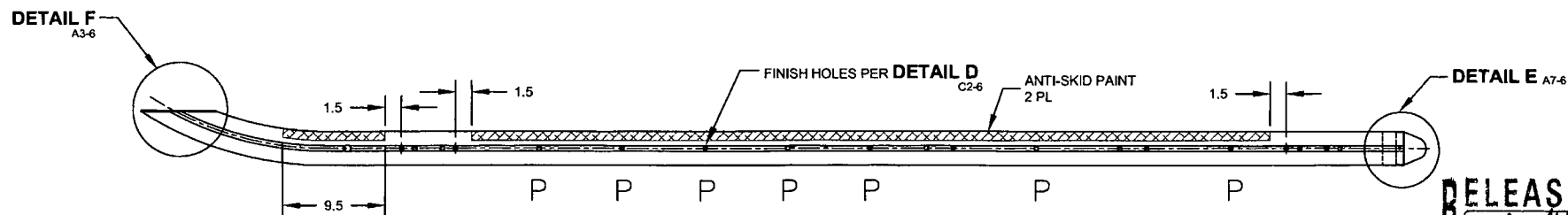
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08 07 22 1118

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 3 OF 6
APPROVED		TITLE	SCALE
OE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
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**D2650-5 BENDING/DRILLING DETAIL**

W10.61548

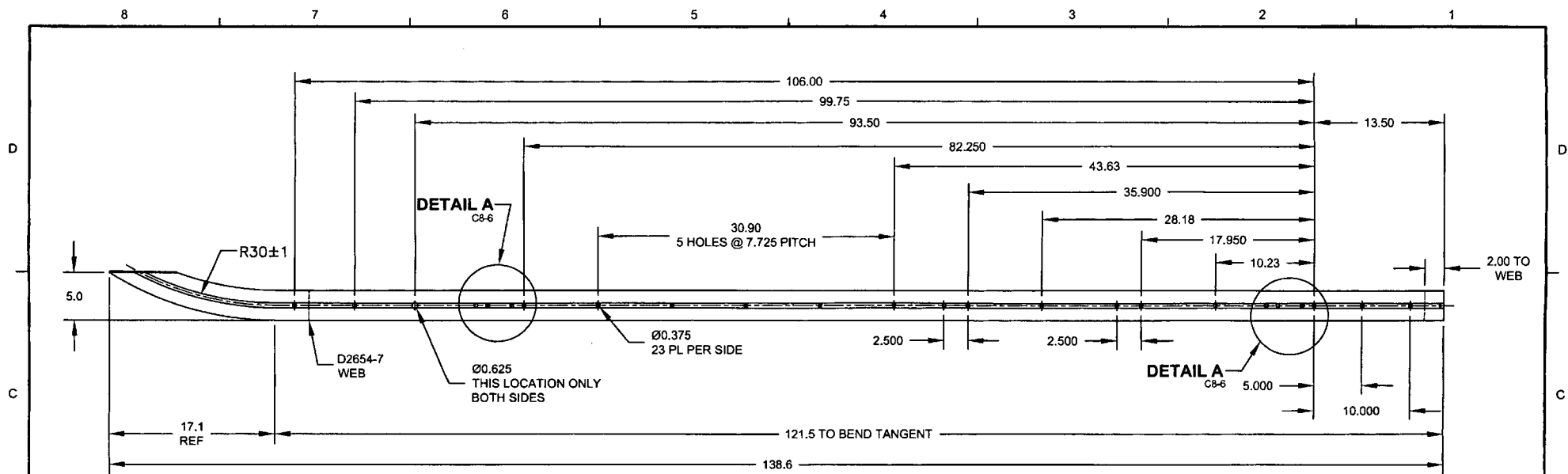


**D2650-5 ASSEMBLY/FINISHING DETAIL**

**RELEASED**

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED	J	DRAWING NO.	REV. F
MFG. APPR.	J	D2650	SHEET 4 OF 6
APPROVED	J	TITLE	SCALE
DE APPR.	J	206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	<small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

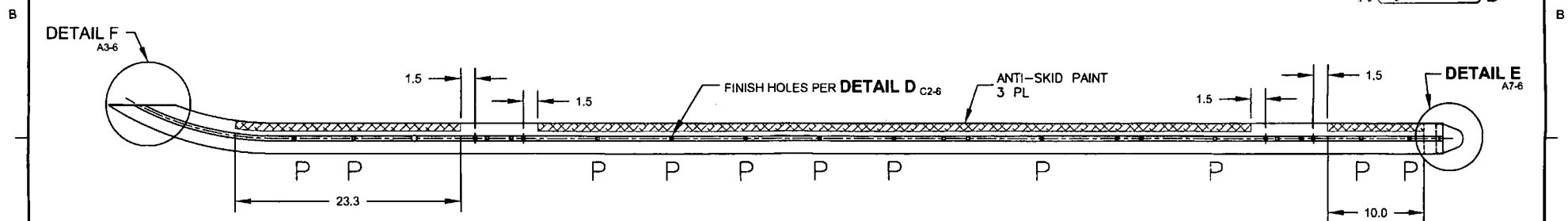




**D2650-7 BENDING/DRILL DETAIL**

W10.61548

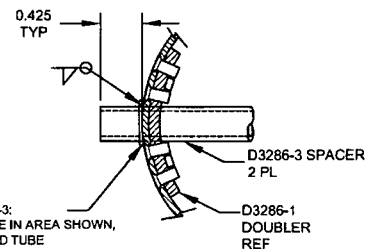
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08-07-22



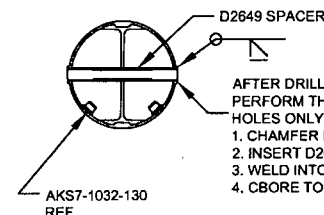
**D2650-7 ASSEMBLY/FINISHING DETAIL**

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 5 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	<small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

**SECTION C-C** C7-6  
SCALE NONE



- TO INSTALL D3286-1/3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH ROUND TUBE
  2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
  3. ENLARGE HOLES IN D3286-1 TO Ø0.500
  4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.030x45°
  5. RIVET D3286-1 TO TUBE
  6. INSERT D3286-3 SPACER
  7. WELD IN PLACE.



- AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.030 X 45°
  2. INSERT D2649 SPACER
  3. WELD INTO PLACE AND GRIND FLUSH
  4. CBORE TO Ø0.313 X 0.75 DP

**DETAIL D**  
FOR Ø0.375 HOLES ONLY  
SCALE 3X

B4-2  
B4-3  
B4-4  
B4-5

W10'61548

**DETAIL F NOTES:**

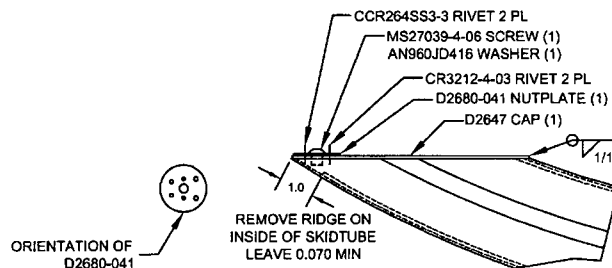
1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D2647 (TRIM AS NECESSARY)
4. WELD D2647 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D2680-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH

**RELEASED**  
05-09-22-18

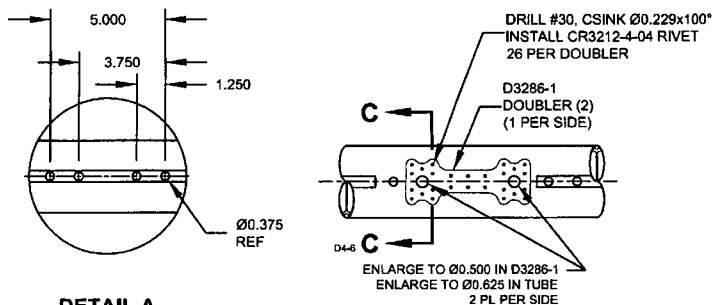
**DETAIL F**  
SCALE NONE

B8-2  
B8-3  
B8-4  
B8-5



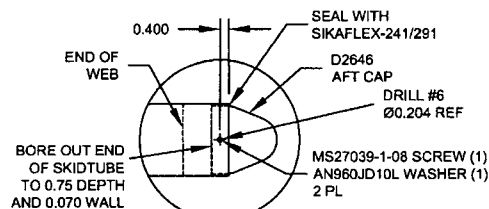
**DETAIL A**  
SCALE 2X

C2-2  
D7-2  
C2-3  
D7-3  
C2-4  
D7-4  
C2-5  
D8-5



**DETAIL B**  
SCALE 2X

C3-2  
C3-3



**DETAIL E**  
SCALE 2X

B2-2  
B2-3  
B1-4  
B1-5

DESIGN	DS	<b>DART AEROSPACE USA, INC</b>	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 6 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



NO. 251

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 61039  
Part number: D206-442-441  
Description: 206 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Pet. Dyl Date of Test Coupon 10.08.19

Welder Barclay Elliott Date of Test Coupon 10.08.19

The above named individual is qualified in accordance with AWS D17.1.2001 to weld